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ABOUT THE COVER

Accurate three-dimensional graphic representation helps researchers to understand mathematical effects in the real world. For example, Versacad Corp.'s new enhancement for its "Design" software allows designers to make graphic representations of both algebraic and transcendental functions, including *n*th order polynomials and trigonometric, logarithmic, and exponential functions.

This new feature permits an operator at a PC or an engineering work station to perform various design tasks, such as simulating stress and tolerance factors put on an object, based on its size and weight.

Once mathematical functions are calculated, the computer displays the results as a series of triangular-meshed polygons. The software also takes advantage of 3-D software features, such as light-source color shading, hidden-line removal, and several display modes.

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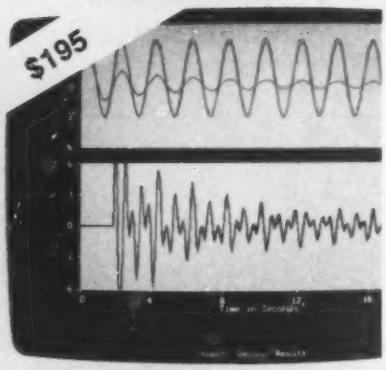

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OPINION POLL RESULTS

Much research not reported

RESULTS of many research projects are not shared with the scientific community, a recent survey of *Research & Development* readers reveals.

More than half of the respondents do not report more than some of their work. And, for half of those, the reason is that the information is considered proprietary.

Complete results of the survey follow:

1. *What portion of your research work do you tell the scientific community about?*
   a. all 7% b. most 33% c. some 48%
   d. none 12%
2. *Of the work you don't tell others about, why don't you?*
   a. national security 8%
   b. proprietary reasons 54
   c. not deemed to be significant enough 28
   d. no incentive to do so 10
3. *In what form do you tell others of your research?*
   a. publish in society journals 19%
   b. publish in periodicals such as *R&D* 3
   c. presentations at symposiums 23
   d. all of the above 37% e. other 18%
4. *How does your organization compensate you for your publishing efforts?*
   a. extra money 8%
   b. time off 2
   c. allowed to write on company time 47
   d. no compensation 43
5. *How does your organization feel about publishing research results?*
   a. expect you to publish as often as possible 37%
   b. whether to publish is left to your discretion 38
   c. you are discouraged from publishing 18
   d. you are not allowed to publish 7
6. *Do you enjoy the work involved in publishing the results of your work?*
   a. yes 64% b. no 14% c. indifferent 22%
7. *When you want to find out what others are doing in your field of research, where do you look?*
   a. society journals 56%
   b. other single-topic journals 15
   c. trade magazines such as *R&D* 15
   d. symposiums 8
   e. personal communications 6
8. *How many research reports do you read each month?*
   a. 0 to 5 29% b. 6 to 10 33%
   c. 11 to 20 23% d. more than 20 5%
9. *Do you keep files of articles and research papers that describe work others have done in your field?*
   a. yes 96% b. no 4%
10. *On a scale of one to five, with five being most important, how important is the practice of publishing research results?*
    a. 5 53% b. 4 29% c. 3 12%
    d. 2 3 e. 1 2

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